SDCS--ER--76--110

SPECIAL DATA COLLECTION SYSTEM EVENT REPORT
Tuamotu Archipelago Region, 11 July 1976

M. S. Dawkins & M. D. Gillispie

Alexandria Laboratories

Teledyne Geotech, 314 Montgomery Street, Alexandria, Virginia 22314

February 1978

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.

Sponsored by

The Defense Advanced Research Projects Agency (DARPA)

ARPA Order No. 2551

Monitored by

AFTAC/VSC

312 Montgomery Street, Alexandria, Virginia 22314

Disclaimer: Neither the Defense Advanced Research Projects Agency nor the Air Force Technical Applications Center will be responsible for information contained herein which has been supplied by other organizations or contractors, and this document is subject to later revision as may be necessary. The views and conclusions presented are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the Defense Advanced Research Projects Agency, the Air Force Technical Applications Center, or the US Government.

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE

READ INSTRUCTIONS BEFORE COMPLETING FORM

1. REPORT NUMBER: SDCS-ER-76-11	2. GOVT ACCESSION NO.
3. RECIPIENT'S CATALOG NUMBER	
4. TITLE (and Subtitle): SPECIAL DATA COLLECTION SYSTEM (SDCS) Event Report Tuamotu Archipelago Region, 11 July 1976.	5. TYPE OF REPORT & PERIOD COVERED: Technical Report
	6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s): M. S. Dawkins, M. D. Gillispie	8. CONTRACT OR GRANT NUMBER(s): F08606-78-C-0007 ARPA Order 2551
9. PERFORMING ORGANIZATION NAME AND ADDRESS: Teledyne Geotech, 314 Montgomery Street, Alexandria, Virginia 22314	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS: VT/8709
11. CONTROLLING OFFICE NAME AND ADDRESS: Defense Advanced Research Projects Agency, Nuclear Monitoring Research Office, 1400 Wilson Blvd. - Arlington, Virginia 22209	12. REPORT DATE: 24 Jan 78
	13. NUMBER OF PAGES: 9
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office): VELA Seismological Center, 312 Montgomery Street, Alexandria, Virginia 22314	15. SECURITY CLASS. (of this report): Unclassified
	15a. DECLASSIFICATION DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

405 607

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES DEG MN SECS	ELEVATION METERS	INSTRUMENTATION SHORT-PERIOD	LONG-PERIOD
HN-ME	Houlton, Maine	46 09 43.0 N 067 59 09.0 W	213	KS36000	KS36000
RK-ON	Red Lake, Ontario	50 50 20.0 N 093 40 20.0 W	366	18300	SL210 V SL220 H
OB2NV	Nevada Test Site	37 13 31.0 N 116 03 28.0 W		18300	N/A
NT-NV	Nevada Test Site	31 16 33.0 N 116 25 06.0 W		18300	N/A
NT2NV	Nevada Test Site	37 15 16.0 N 116 18 13.0 W		18300	N/A
LASA	Billings, Montana	46 41 19.0 N 106 13 20.0 W	744	HS10	7505A V 8700C H
NORSAR	Kjeller, Norway	60 49 25.4 N 010 49 56.5 E	379	HS10	7505A V 8700C H

SDCS Event Report No. 110

Tuamotu Archipelago Region, 11 July 1976

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	"P" Arrival	Origin Time	Lat.	Long.	m_b	M_s
	PkPD					
NORSAR	00:49:22.1	00:30:11.0	14.1S	161.7W	4.3	N/A
Hagfors	Negative					

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitudes become

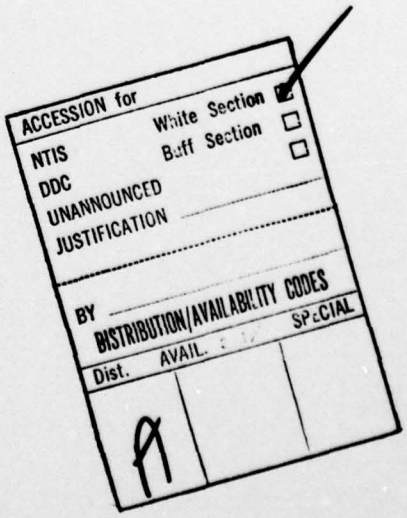
00:30:01.5	21.7S	138.9W	4.4	N/A

RK-ON was inoperative during this period.

Short-period signals associated with this event were recorded at all operative SDCS stations, LASA, and NORSAR. All SDCS data were retrieved from the field station digital tapes, and horizontal channels were rotated. LASA data was taken from the LDC Teleseismic Report; data reported for NORSAR is from their bulletin.

Long-period at all stations was negative.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response).



HYPOCENTER DETERMINATION

11JUL INPUT FOR EVENT 11 JUL 76 (76193)

STA.	PHASE	ARRIVAL TIME	INST	PER	A/T	MAGNITUDE MB	MS	DIP	DIST
LAO	EP	0:41:39.5	SAB	1.2	16.	4.71			74.2
CPO	EP	0:41:50.4	SPZ	1.3	21.	4.92			76.1
FN-WV	EP	0:42:22.4	SPZ	0.9	2.	3.79			81.7
HN-ME	EP	0:43:16.0	SPZ	1.0	2.	4.12			93.0
WH2YKD	EP	0:42:23.4	SPZ	1.9	0.	0.0			115.4
NAO D	EP	0:49:22.1	AB	0.7	3.	0.0			135.5

ORIGIN	LATITUDE DEG	MIN	LONGITUDE DEG	MIN	DEPTH	MAG
0:30:02.0	21.675S(21	40.5)	138.865W(138	51.9)	3.CALC	4.38
0:30:01.5	21.682S(21	40.9)	138.869W(138	52.1)	0.REST	4.38

Short-period magnitudes (m_b) used in averaging are restricted to those recorded at distances between 20 and 110 degrees from the epicenter.

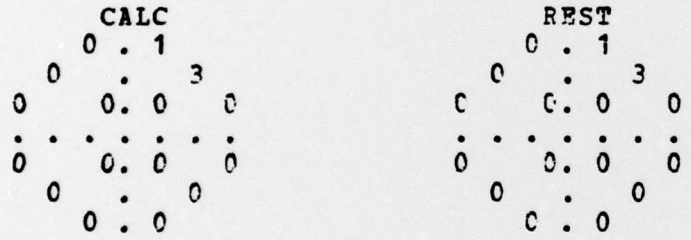
DATA SUMMARY

11JUL INPUT FOR EVENT 11 JUL 76 (76193)

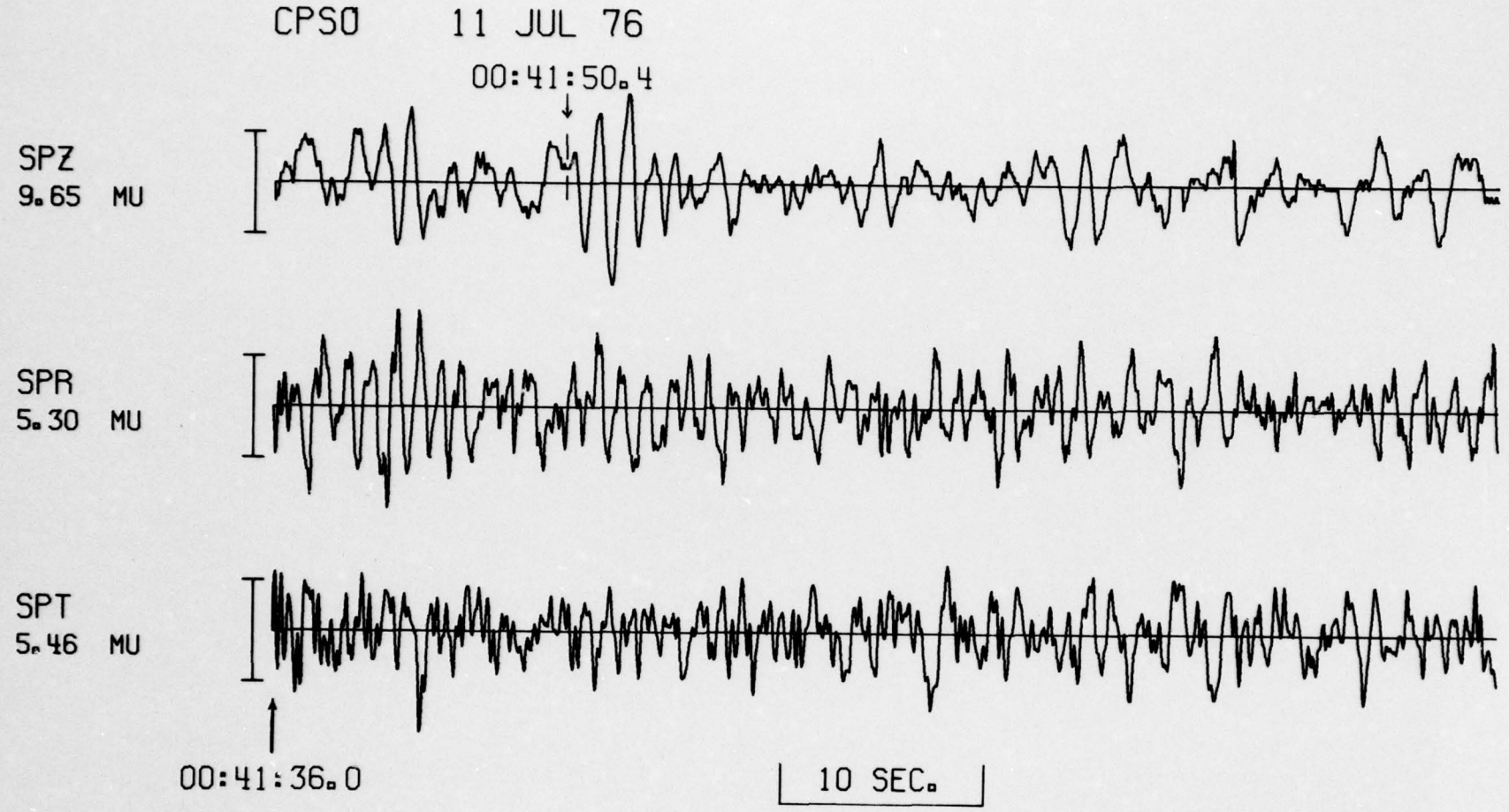
STA.	ARRIVAL	RESIDUALS CALC	RESIDUALS REST	DIST. REST	AZ. REST
LAO	0:41:39.6	0.0	0.0	74.2	22.7
CPO	0:41:50.4	-0.4	-0.4	76.1	42.3
FN-WV	0:42:22.4	0.7	0.7	81.7	43.0
HN-ME	0:43:16.0	-0.3	-0.3	93.0	41.1
WH2YK	0:42:23.4	0.0 D	0.0 D	115.4	31.9
NAO	0:49:22.1	0.0 D	0.0 D	135.5	20.7

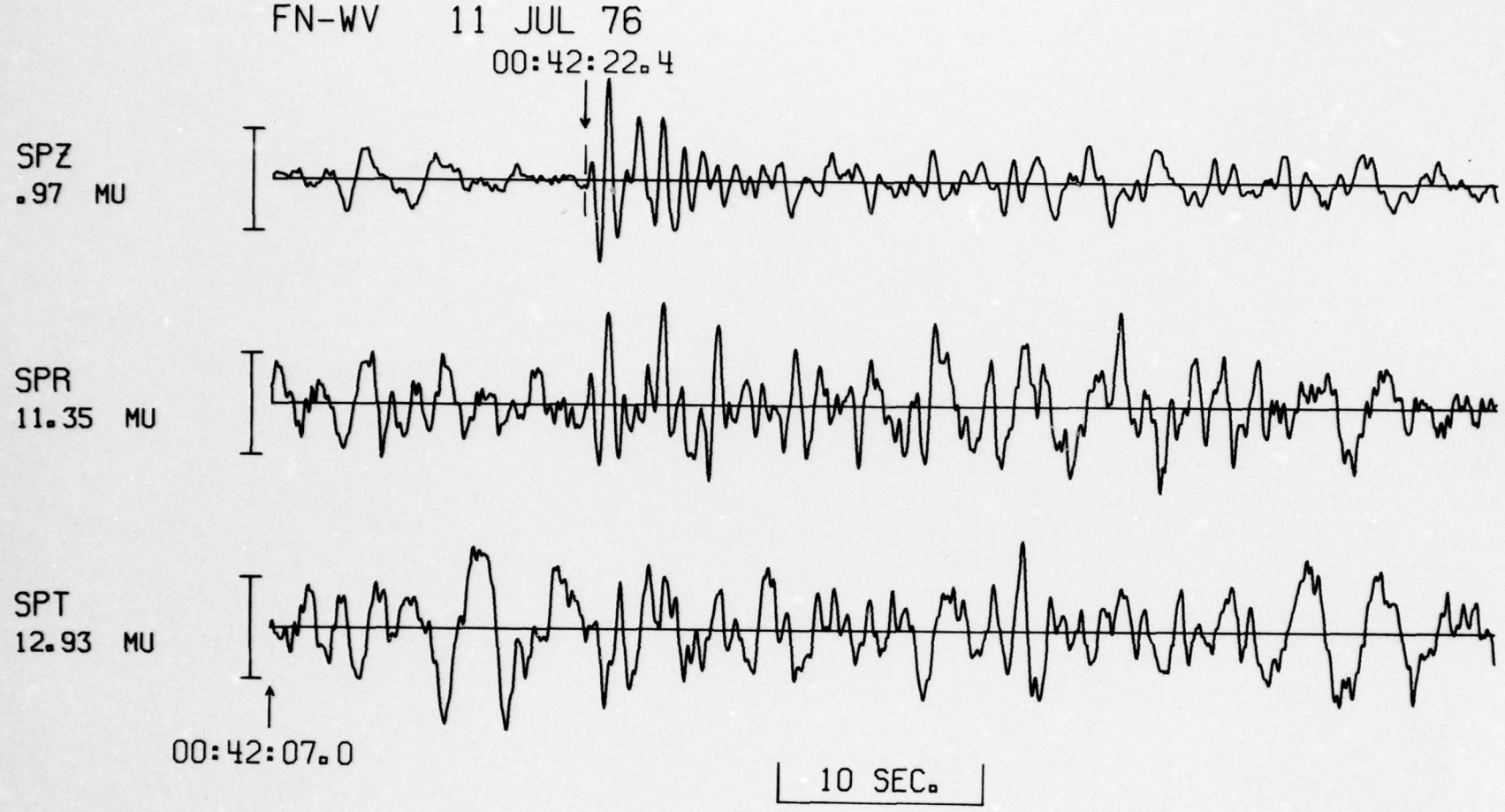
67 HERRIN TRAVEL TIME TABLES

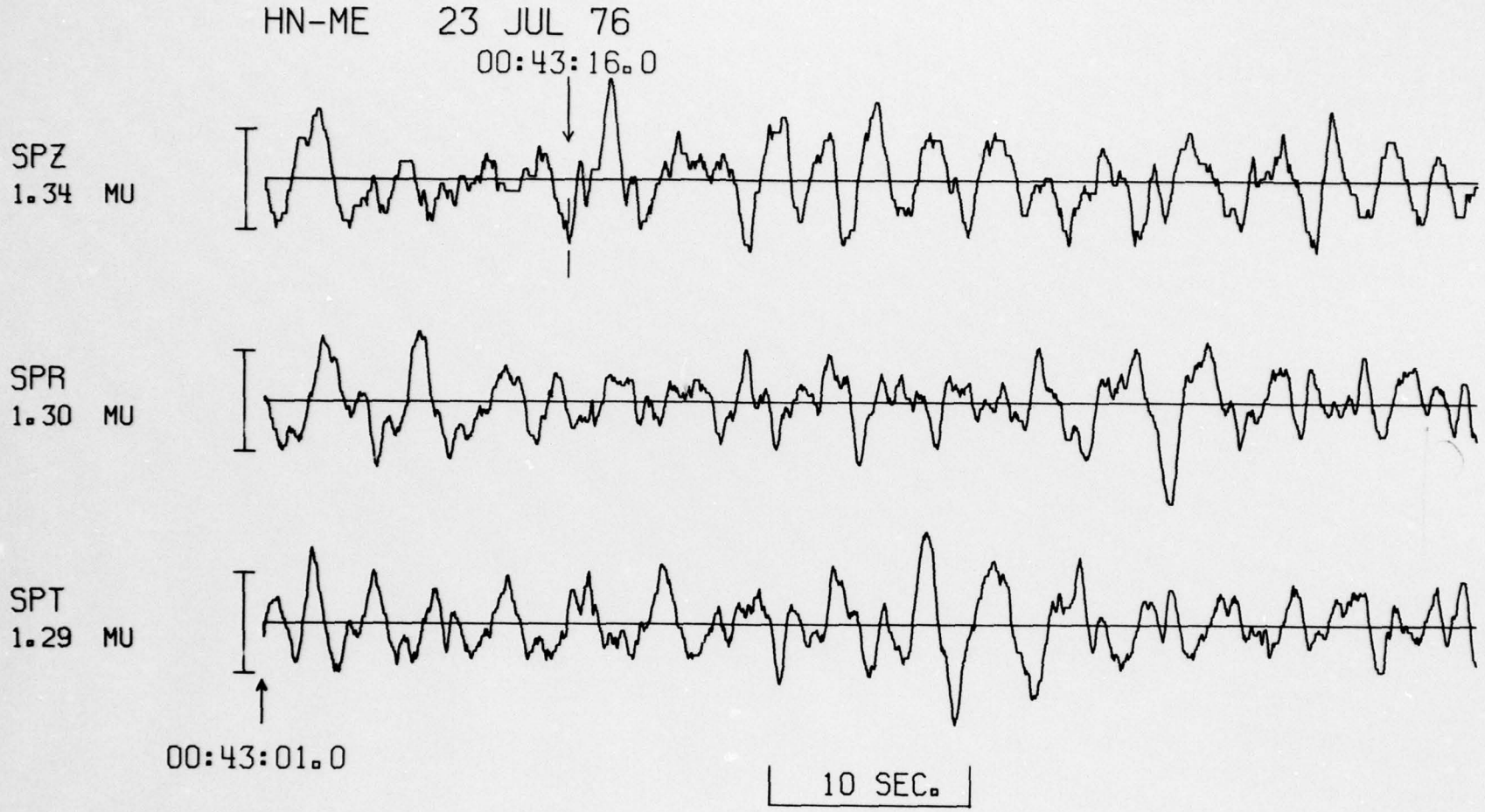
ORIGIN	LAT.	DEG	MIN	LONG.	DEG	MIN	DEPTH(KM)	SDV	IT	STA
0:30:02.0	21.675S	(21	40.5)	138.865W	(138	51.9)	3.CALC	0.5	4	4
0:30:01.5	21.682S	(21	40.9)	138.869W	(138	52.1)	0.REST	0.5	3	4

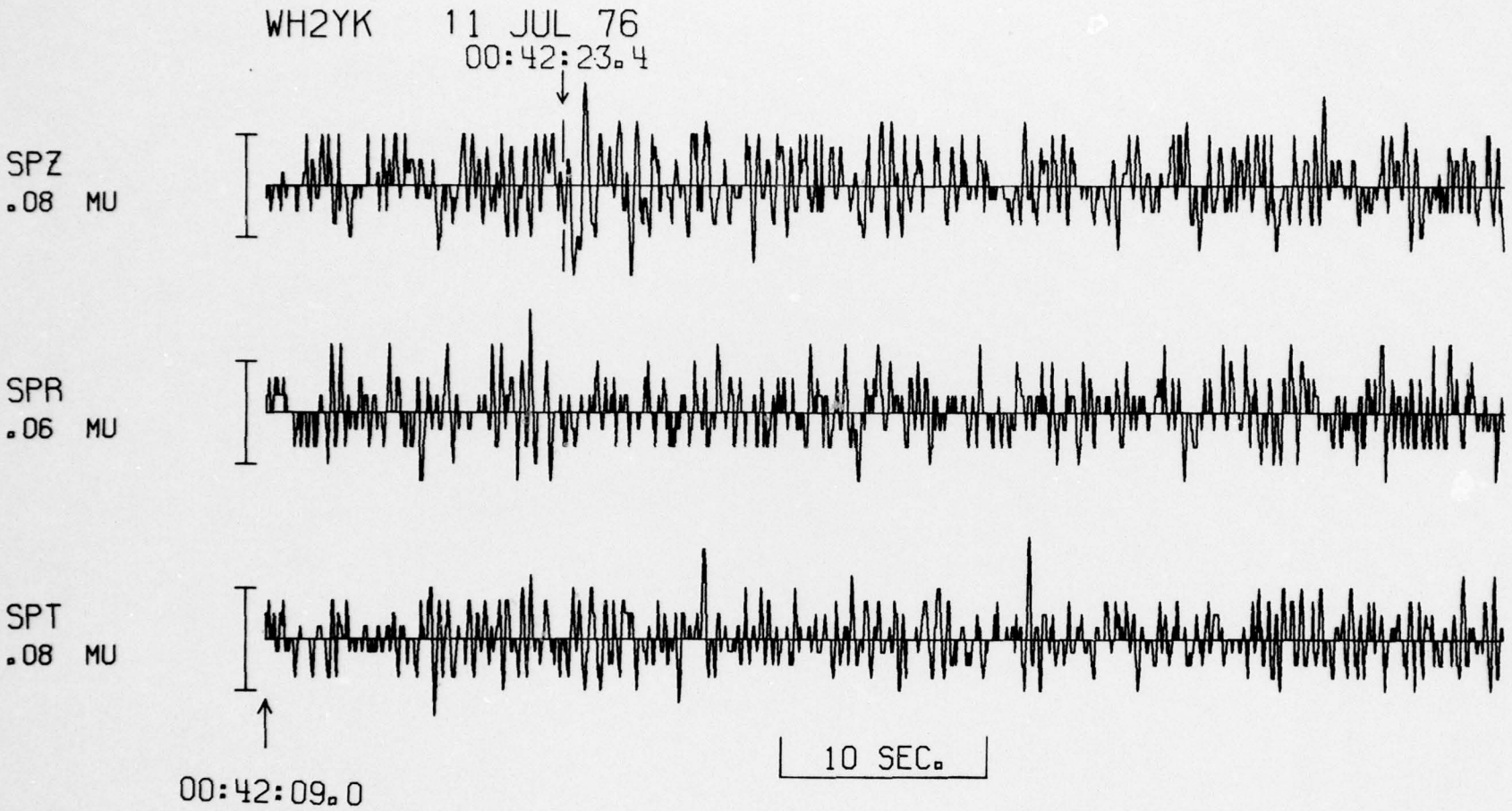


CHI2 COVERAGE ELLIPSE; 95% CONF.LEVEL, SDV= 0.87
MAJOR 301.0KM. MINOR 137.7KM. AZ= 52 AREA= 130228 SQ.KM. REST


CPSO 11 JUL 76
00:41:50.4
SPZ
9.65 MU
SPR
5.30 MU
SPT
5.46 MU
00:41:36.0
10 SEC.


FN-WV 11 JUL 76
00:42:22.4
SPZ
.97 MU
SPR
11.35 MU
SPT
12.93 MU
00:42:07.0
10 SEC.


HN-ME 23 JUL 76
00:43:16.0
SPZ
1.34 MU
SPR
1.30 MU
SPT
1.29 MU
00:43:01.0
10 SEC.


WH2YK 11 JUL 76
00:42:23.4
SPZ
.08 MU
SPR
.06 MU
SPT
.08 MU
10 SEC.
00:42:09.0